

preference of physicians in prescribing Oral Antidiabetic Treatments (OATs) versus Insulin in Diabetes patients. **METHODS:** A survey was conducted by CSD, face to face interviews with 200 physicians of several specialties, GPs, diabetologists, endocrinologists who treat at least 30 diabetic patients/month. The sample emerged from four capital cities of Greece. The sampling method was based on stratified random sample. Interviews were conducted from May 12 to June 3, 2009. Results were weighted according to the actual distribution of specialties. **RESULTS:** The number of patients with type-1 diabetes is approximately 12% and 88% with type-1 diabetes. In DT1 100% patients receive insulin, contrary to DT2 where patients receive 23% insulin and 83% OATs. Overall, 60% of T2D patients are regulated. Also when adding a third OAT drug 54% of the patients will delay the use of insulin. Unmet needs mentioned spontaneously by physicians are: a) poor compliance to treatment; b) poor compliance to diet; and c) high cost of co-payment for medicines. **CONCLUSIONS:** Based on the results of the present study, physicians use insulins for DT1 patients and they prefer OATs for T1ID. The economic burden of T1ID patients is heavy due to high co-payment rate, which might be linked to poorly regulated patients leading to higher incidence of diabetes-related complications.

PDB71

GLYCAEMIC AND CHOLESTEROL CONTROL OF TYPE 2 DIABETIC PATIENTS ATTENDING SPECIALIST OUTPATIENT CLINICS IN SINGAPORE

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OBJECTIVES: The specialist outpatient clinics (SOCs) of the 3 acute hospitals of the National Healthcare Group (NHG) in Singapore treat over 11,000 patients with diabetes mellitus. This paper studies the glycaemic and cholesterol control of type 2 diabetes mellitus (T2DM) patients at these SOCs. **METHODS:** This study included all patients with T2DM who attended the hospital SOCs in Jan 2009 for treatment of diabetes. These patients had been on follow-up at the same clinic for at least 12 months. The latest glycated haemoglobin (HbA1c) and LDL-cholesterol (LDL-c) results were compared by age, gender and ethnic group. Data was extracted from the NHG Diabetes Registry (CDMS). **RESULTS:** There were 3,420 T2DM patients with more females (53%) and disproportionately more Indians (14.1%) and fewer Chinese (66.3%) than the general population. The mean ages of male and female were 61.8 and 64.9 years respectively. The proportion of patients with "optimal" HbA1c ($\leq 7\%$) and LDL-c (< 2.6 mmol/L) control increased with age. For HbA1c, 13% of patients < 35 years had "optimal" control (mean 8.96%, 95%CI 8.42–9.50%) increasing to 61% for patients 85+ years (mean 7.04%, 95%CI 6.79–7.28%). Similarly for LDL-c, 41% of patients < 35 years had "optimal" control (mean 2.92 mmol/L, 95%CI 2.63–3.21 mmol/L), increasing to 74% for patients 85+ years (mean 2.28 mmol/L, 95%CI 2.14–2.41 mmol/L). Chinese had better HbA1c and LDL-c control whilst Malay and Indian were poorest for LDL-c and HbA1c respectively. There was no gender difference. **CONCLUSIONS:** The control of HbA1c and LDL-c among T2DM patients improved with age. Younger patients and the Malay and Indian subgroups had greater potential to achieve "optimal" glycaemic and cholesterol control and reduce the risk of developing micro- and macro-vascular complications over time. While the older patients achieved better HbA1c control than younger ones, clinicians should remain mindful of side-effects such as hypoglycaemia among those with very tight glycaemic control.

PDB72

QUALITY ADJUSTED LIFE YEARS LOSS DUE TO TYPE 2 DIABETES IN SOUTH KOREA

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OBJECTIVES: This study was conducted to estimate quality adjusted life years (QALYs) loss due to diabetes in type 2 diabetic patients of South Korea. **METHODS:** In order to obtain QALYs loss due to morbidity of type 2 diabetes (T2D), we firstly estimated utility weight difference between T2D patients and non-diabetic subjects by sex and age groups. We consecutively recruited T2D patients aged 20 or over who visited three university hospitals in Seoul and Ilsan from October 2007 to January 2008 and non-diabetic subjects who took a medical examination from June 2008 to Jan 2009 in same hospitals. Utility weight differences on sex and age groups were calculated using the EuroQoL EQ-5D and Korean valuation set, and then QALY losses was estimated using the utilities and the number of T2D patients in 2003 reported by the Korean Diabetes Basic Statistics Study. QALY losses due to T2D mortality corresponded to life expectancy of the death caused T2D from the life table and the Korean Death Certificate in 2003 multiplied by utility weights of healthy people by sex and age groups from the 3rd Korea National Health and Nutrition Examination Survey (2005). We considered a discount rate as 5%. **RESULTS:** Total 1,072 T2D patients and 387 non-diabetic subjects participated in this survey. Maximum difference between T2D patients and non-diabetic subjects was 0.0418 and minimum difference was 0.0095 by subgroups. QALY loss estimates due to T2D morbidity were about 35,125 QALYs in male and 50,613 QALYs in female. Preterm death caused by T2D brought about 58,186 QALYs in male and 49,432 QALYs in female considering the discount rate. Therefore, total QALY loss was estimated as 193,356 QALYs annually. **CONCLUSIONS:** The results suggest that QALY loss estimates caused by T2D was 4.0 QALYs/1000 persons in South Korea at 2003.

PDB73

ANALYSIS OF FACTORS INFLUENCING DECISION MAKING ON TYPE 2 DIABETES DRUGS IN 5 HTA-AGENCIES

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OBJECTIVES: To map factors that influence HTA-agencies in their Health Technology Assessments (HTA) on type 2-diabetes agents in the UK (NICE), Scotland (SMC), The Netherlands (CVZ) Germany (IQWiG) and Sweden (TLV). **METHODS:** To retrieve the HTA reports, a search was executed using the agencies websites with the following keywords: pioglitazone, rosiglitazone, sitagliptin, vildagliptin, exenatide, glargine, detemir, aspart, glulisine and lispro. If a report contained several drugs each drug was counted separately although a decision could involve a class of drugs. Decision parameters were clustered in three categories: efficacy, safety and health economics where each assessment could contain multiple parameters. Overall recommendation was classified in three categories: recommended restricted recommended and not recommended in relation to indication based on marketing authorisation. **RESULTS:** 35 reports were identified with 49 assessments. Twelve assessments lead to recommendation (24%), 23 to restricted recommendation (47%) and fourteen to no recommendation (29%). Reasons for recommending a treatment contained in 83% of cases one or more arguments related to efficacy, 33% to safety, and 66% to health economic aspects of drugs. Reasons for restricted recommendation were 70%, 39%, and 60%, and for not recommended were 100%, 57% and 21% respectively. Within each decision parameter the most common reason for restricting the market authorization indication was related to the drug not being cost-effective (57%). The most common reason for not recommending a drug was lack of long term data on efficacy (86%). **CONCLUSIONS:** Despite that large variations in results between agencies were observed, data demonstrating efficacy of the drug appeared to be the most important factor in getting a recommendation for type 2 diabetes treatment. A high incremental cost-effectiveness ratio was likely to lead to restrictions in indication (NICE, SMC and TLV) whereas lack of long term data could lead to the drug not being recommended (IQWiG and CVZ).

PDB74

ETHICAL DILEMMAS OF PHARMACOLOGICAL TREATMENT AND SELF MANAGEMENT OF DIABETES—A REVIEW OF THE LITERATURE

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OBJECTIVES: There is increasing focus on the ethical analysis in Health Technology Assessments (HTA). Due to the escalating epidemic of diabetes, diabetes has become an urgent health concern. We therefore systematically reviewed published articles describing the ethical aspects of pharmacological treatment and self management of diabetes. **METHODS:** PubMed was searched from inception to 2009 using the following combinations of keywords: ethics AND diabetes NOT screening NOT transplant. Articles were initially screened for relevance by reading title and abstract. If deemed appropriate, by two independent reviewers, full copies of the remaining articles were retrieved for further review. **RESULTS:** Out of 336 articles, only six studies were deemed appropriate. The main reason for this high level of rejected articles was that the majority of identified articles commented on the ethical approval in connection to conducting clinical studies rather than on the ethical aspects of implementing and using the specific technology. One study described the ethical concern related to the costly late complications of diabetes compared to preventing late complications by prescribing and reimbursing insulin. Other ethical issues concerned self management and the transferral of responsibility from physician to patient and the patient's capabilities for self management. For people with impaired glucose tolerance there were also ethical issues related to initiating a preventive pharmacological treatment of the "otherwise well". Lastly, there is an ethical issue between the normative gold standard for a healthy and moral lifestyle and a culture of self that values authenticity and originality. **CONCLUSIONS:** Due to the escalating prevalence of diabetes and emphasis on ethical analysis in HTAs, both payers and the industry needs to get a better understanding of the ethical aspects of self management and pharmacological treatment of diabetes. More research should be allocated towards investigating the ethical aspects of self management and pharmacological treatment of diabetes.

PDB75

APPLICATION OF HTA TO ANTIDIABETIC DRUG FORMULARY DECISIONS

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OBJECTIVES: To compare Health Technology Assessments (HTAs) and reimbursement decisions of a novel antidiabetic drug class, by health care agencies worldwide. **METHODS:** We conducted manual searches of 54 health care agencies' web sites from January 2008 to May 2009. HTAs regarding diabetes were collected and each was assessed for date, type (e.g., single drug versus class review) and scope (e.g., medicine name). Using a standardized set of categorical criteria, we investigated recommendations, as well as presence of supporting evidence (e.g., reported outcome measures, information sources, and key decision drivers). **RESULTS:** A total of 21 completed diabetes assessments were assessed. Data were retrieved from 9 agencies in 9 countries. The agencies published 21 assessments on diabetes during the review period; including 4 clinical guidelines, 9 single drug appraisals and 8 class reviews. Of